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REMARKS

The formal objections and/or rejections to the Abstract and claims are attended to by editing above that should not raise any Festo-like limitations, because non-narrowing.

Neither should the combination of claims 1 and 4, despite some thinking to the contrary.

It is noted in connection with the claimed ridge and rudder in the lift contour that the applicant may be his own lexicographer (*MPEP* 2111.01 III), the lexicography in this case probably being extenuated by translation.

The rejection under 35 USC 102 for anticipation by the cited Laufman patent is traversed at least by the claimed direction rudder having control surfaces at the output end of an air nozzle and the direction rudder having control surfaces in a lift contour. The patent does not have the latter and certainly not the combination, and:

A claim is anticipated only if each and every element is set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *MPEP* 2131 (citation omitted)

More specifically, the aircushion vehicle disclosed in the cited Laufman patent comprises an inclined fan mounted in the front part of the vehicle and used both for thrust and lift; a divided thrust channel bypassing the vehicle cockpit (crew cabin) on both sides and having at the output the vehicle rudders, wherein the thrust channel can be blocked by flaps to direct the air flow of the thrust contour into thrust reverse channels.

Such an aircushion vehicle has a number of serious disadvantages:

- The divided thrust channel has increased aerodynamic resistance due to friction of the air flow. The resistance also increases since the flow must be turned in the channels in two planes;

- The mass of the two channels is always higher than the mass of a single channel of the same productivity;
- When controlling force acts on the rudders mounted at the output of the thrust channel, at the same time a side force appears that directs the vehicle from the motion path to a side opposite to the desired direction of motion. The higher force acting on the rudders, the bigger undesirable side motion of the vehicle;
- Only air flow of the thrust channels takes part in the vehicle control system. The rate of this flow is not higher than 60% of the total flow rate of the fan. About 40% of the total flow rate in the lift channel does not take part in the vehicle control. This deficit of control forces is the main disadvantage of control systems of all highly maneuverable aircushion vehicles; and
- At switching to the reverse the vehicle according to US 3,777,842 becomes completely out of control especially when the speed is low.

Contrary thereto, the claimed vehicle offers a highly dynamic aircushion having a control system of maximum power and accuracy with improved characteristics of control, in particular in the mode of reverse thrust, and also having smaller weight.

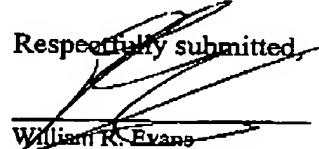
The foresaid advantages are achieved due to the following technical means. The vehicle has a propelling fan mounted in the nose part. Air flow is directed into two channels of different purposes: a thrust channel and a lift channel for lifting the vehicle on an aircushion. The rudders of the vehicle are arranged so that they can deflect the flow creating controlling forces from the axis of symmetry of the vehicle both in the thrust channel and in the channel of creating an aircushion, and the direction of the flow deflection and the force on the rudder surfaces in the thrust channel and in the channel of creating an aircushion are mutually opposite. Therefore, it is possible not only substantially decrease adverse affect of

rear rudders on vehicle steering but even its complete removal by selecting reduction ratio of the steering device to the rudders in the channels. The total power of the control system increases by at least 50%, and the vehicle is fully controllable even in the mode of thrust reverse.

Thus, the claimed technical solutions are different both in their design and achieved technical result, whereby the claims are both novel and unobvious.

Reconsideration and allowance are, therefore, requested.

Respectfully submitted,


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